

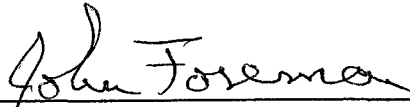
1. As described in paragraph 21 of the Procedural Order entered in the above entitled matter on April 27, 2009, if the parties were not able to agree upon the language of the final draft of the CEC the Chairman will determine the final language of the CEC to be issued and filed with docket control of the Arizona Corporation Commission. See, A.R.S. § 40-360.07(A) and A.A.C. R14-3-214(A). The comments submitted to the Chairman by the intervenors, Marshall Magruder and Elizabeth Webb, go to the merits or substance of the CEC not the form. The opportunity for post-hearing comment is to allow all the parties to state what they

1 believe the final language of the CEC including the conditions attached to the CEC,
2 should say about the decisions of the Committee. It is not an opportunity to relitigate
3 the merits or substance of the CEC and its conditions.

4 THEREFORE, IT IS ORDERED, overruling the objections of intervenors
5 Magruder and Webb to the form of the CEC and its attached conditions.

6 IT IS FURTHER ORDERED filing the attached CEC and conditions approved
7 by the Committee during its meeting/hearing in the above matter on July 9, 2009.
8
9

10 DATED this 15th day of July, 2009
11

12 
13 John Foreman
14 Assistant Attorney General
15 Chairman
16 Arizona Power Plant and Transmission
17 Line Siting Committee
18 john.foreman@azag.gov
19

20 Pursuant to A.A.C. R14-3-204,
21 The Original and 25 copies were
22 filed this 15th day of July, 2009 with:

23 Docket Control
24 Arizona Corporation Commission
25 1200 W. Washington St.
26 Phoenix, AZ 85007

1 Copy of the above mailed
2 this 15th day of July, 2009 to:

3 Charles Hains
4 Janice Alward, Chief Counsel
5 Arizona Corporation Commission
6 1200 West Washington Street
7 Phoenix, AZ 85007
8 Counsel for Legal Division Staff


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Arizona Reporting Service, Inc.
2200 North Central Avenue
Phoenix, AZ 85004-1481

23
24 
25 Susan C. Ellis
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**BEFORE THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE**

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IN THE MATTER OF THE APPLICATION OF
UNS ELECTRIC, INC. FOR A CERTIFICATE
OF ENVIRONMENTAL COMPATIBILITY
FOR THE VAIL TO VALENCIA 115 KV TO
138 KV TRANSMISSION LINE UPGRADE
PROJECT, ORIGINATING AT THE EXISTING
VAIL SUBSTATION IN SEC. 4, T.16S., R.15E.,
PIMA COUNTY, TO THE EXISTING
VALENCIA SUBSTATION IN SEC. 5, T.24S.,
R.14E., IN THE CITY OF NOGALES, SANTA
CRUZ COUNTY, ARIZONA.

Docket No. L-00000F-09-0190-00144

Case No. 144

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CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission
Line Siting Committee (the "Committee") held public hearings on June 2, 3, and 4, 2009 in Rio
Rico, and July 8 and 9, 2009 near Chandler, Arizona all in conformance with the requirements of
Arizona Revised Statutes ("A.R.S.") § 40-360, *et seq.*, for the purpose of receiving evidence and
deliberating on the Application of UNS Electric, Inc. ("Applicant") for a Certificate of
Environmental Compatibility ("CEC") in the above-captioned case (the "Project").

The following members and designees of members of the Committee were present at one
or more of the hearings for the evidentiary presentations and/or for the deliberations:

John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Jessica Youle	Designee for Director, Energy Department, Arizona Department of Commerce
Jeff McGuire	Appointed Member
Bill Mundell	Appointed Member

1	Patricia Noland	Appointed Member
2	Michael Palmer	Appointed Member
3	Michael Whalen	Appointed Member
4	Barry Wong	Appointed Member

5 The Applicant was represented by J. Matthew Derstine, Michael W. Patten, and Jason D.
6 Gellman of Roshka, DeWulf & Patten, PLC, and Marcus G. Jerden of UniSource Energy
7 Corporation. The following parties were granted intervention pursuant to A.R.S. § 40-360.05:
8 Marshall Magruder and Elizabeth Webb, both in pro persona.

9 At the conclusion of the hearings, the Committee, having received the Application, the
10 appearances of the parties, the evidence, testimony and exhibits presented at the hearings, and
11 being advised of the legal requirements of A.R.S. §§ 40-360 to 40-360.13, upon motion duly
12 made and seconded, voted 10 to 0 to grant the Applicant this CEC (Case No. 144) for the Project
13 to rebuild the existing 115 kV transmission line as a 138 kV transmission line and interconnect
14 that transmission line to the Vail Substation as set forth in the Application.

15 The Project as approved consists of approximately 57.7 miles of 138 kV transmission line
16 and ancillary facilities along the route as described below. The Project starts at the Vail
17 Substation, and ends at the Valencia Substation. A legal description and general location map of
18 the Project is attached as Exhibit A.

19 As explained in the Project Application, the Project will:

- 20 • Interconnect the northern end of the line with a major import substation (the Vail
21 345/138 kV Substation) instead of the Nogales Tap.
- 22 • Upgrade the line voltage from 115 kV line to 138 kV.
- 23 • Replace aging wooden H-frame structures with steel monopoles.

24
25 As explained in the Project Application, the Project Alignment (the route granted for the
26 Project in this CEC), consisting of a 500-foot-wide planning corridor except where noted, and as
27 more further described in attached Exhibit A and the Application, is as follows:

1 The Project Alignment originates from the Vail Substation in Section 4, Township 16
2 South, Range 15 East. The Project Alignment then extends westerly parallel to Tucson Electric
3 Power Company's ("TEP's") Vail-Robert Bills (138 kV) and Vail-Irvington (138 kV) lines along
4 an access road which is an east extension of the Old Vail Connection Road to where Old Vail
5 Connection Road intersects Wilmot Road (2.3 miles). At this intersection, the Alignment turns
6 south extending to the Nogales Tap and interconnects to the existing line (1.5 miles). From that
7 interconnection, the alignment then continues south to the Kantor Substation (27.8 miles) utilizing
8 the existing line that was previously rebuilt in accordance with the Application in Line Siting
9 Case No. 78 and approved in Decision No. 56097 (August 17, 1988). No improvements, pole
10 replacements, or construction are necessary therein and the existing line in this portion is hereby
11 designated for operation at 138 kV.

12 The Project Alignment leaves the Kantor Substation southerly along the foothills of the
13 Santa Rita Mountains east of the Santa Cruz River. South of Josephine Canyon, the Project
14 Alignment drops out of the foothills and into the Santa Cruz River Valley (11.8 miles). To this
15 point from the Nogales Tap the Project Alignment follows the alignment for the existing 115 kV
16 transmission line. North of the intersection of that existing 115 kV transmission line alignment
17 and Pendleton Drive, the Project Alignment deviates from the existing 115 kV transmission line
18 alignment and shifts 0.2 miles west to a point 50 feet from the easterly edge of the UPRR right-of-
19 way. The Project Alignment then continues paralleling the UPRR right-of-way to the Canez
20 Substation (1.8 miles) and then continues southerly adjacent to the UPRR in the Santa Cruz River
21 Valley (3.4 miles). Near the intersection of Pendleton Drive and Avenida Coatimundi, the
22 alignment shifts from the UPRR right-of-way and parallels Avenida Coatimundi east to the
23 Sonoita Substation (0.3 miles).

24 The Project Alignment extends southerly out of the Sonoita Substation along the existing
25 line across Sonoita Creek and the Santa Cruz River to Old Tucson Road, and then parallels Old
26 Tucson Road to a point near the intersection with Grand Avenue (5.9 miles).
27

1 At the intersection of Old Tucson Road and Grand Avenue, the line departs from the
2 existing line to proceed east of and parallel to Grand Avenue on the east side of Nogales Wash
3 through an industrial area (0.9 miles). The Project Alignment then returns to the existing line
4 alignment near where Frank Reed Road intersects Grand Avenue, and continues south, along the
5 west side of the Santa Cruz County Complex (0.8 miles). The Alignment then shifts east and
6 passes through the Preston Mobile Home Park (0.3 miles) with a 1250-foot-wide planning corridor
7 for this course only.

8 The Project Alignment then turns to the south through the Mariposa Mall, across Mariposa
9 Road, and through the Loma Linda Shopping Center (0.4 miles). The Project Alignment continues
10 on the existing line's alignment and turns to the east, entering the Valencia Substation located in
11 Section 5, Township 24 South, Range 13 East (0.4 miles).

12 The Project will replace the existing wooden H-frame structures with steel monopoles
13 from the Kantor Substation to the Valencia Substation as described in the Application. Steel
14 monopoles will also be used between Vail Substation and the Nogales Tap; the existing
15 transmission line portion constructed pursuant to Line Siting Case No. 78 is already on steel
16 monopoles.

17 18 CONDITIONS

19 This Certificate is granted upon the following conditions:

- 20 1. The Applicant shall obtain all approvals and permits required by the United
21 States, the State of Arizona, Pima County, Santa Cruz County, the City of
22 Tucson, the City of Nogales, the Town of Sahuarita, U.S. Bureau of Land
23 Management ("BLM"), and any other governmental entities having jurisdiction
24 necessary to construct the Project.
- 25 2. The Applicant shall comply with all existing applicable statutes, ordinances,
26 master plans, county comprehensive plans, city general plans, project area
27 development and subdivision plans, and regulations of the United States, the State

1 of Arizona, Pima County, Santa Cruz County, the City of Tucson, the City of
2 Nogales, the Town of Sahuarita, and any other governmental entities having
3 jurisdiction during the construction and operation of the transmission line.

4 3. If any archaeological, paleontological or historical site or object that is at least
5 fifty years old is discovered on state, county or municipal land during the
6 construction or operation of the transmission line, the Applicant or its
7 representative in charge shall promptly report the discovery to the Director of
8 the Arizona State Museum, and in consultation with the Director, shall
9 immediately take all reasonable steps to secure and maintain the preservation of
10 the discovery as required under A.R.S. § 41-844.

11 4. If human remains and/or funerary objects are encountered on private land
12 during the course of any ground-disturbing activities relating to the
13 construction or operation of the transmission line, the Applicant shall cease work
14 on the affected area of the Project and notify the Director of the Arizona State
15 Museum as required under A.R.S. § 41-865.

16 5. The Applicant shall comply with the notice and salvage requirements
17 of the Arizona Native Plant Law (A.R.S. §§ 3-901 et seq. as applicable), county
18 and municipal plant ordinances (as applicable) and shall, to the extent feasible,
19 minimize the destruction of native plants during the construction and operation of
20 the transmission line.

21 6. The Applicant shall not assign this Certificate or its interest in the Project
22 authorized by this Certificate without prior approval of the Commission. Any
23 assignment of this Certificate shall require the assignee to assume all
24 responsibilities of the Applicant listed in this Certificate.

25 7. This authorization to construct this Project shall expire five years from the date
26 the Certificate is approved by the Commission unless the transmission line is
27 capable of operation. However, prior to expiration, the Applicant or its assignees

- 1 may request that the Commission extend this time limitation.
- 2 8. In the event that the Project requires an extension of the term of this Certificate
- 3 prior to completion of construction, Applicant shall use reasonable means to
- 4 notify by first class mail all landowners, neighborhood associations
- 5 registered with the local governing jurisdiction, and residents within one
- 6 mile of the Project corridor, all persons who made public comment at this
- 7 proceeding, and all parties to this proceeding of the request. Applicant will
- 8 provide the date, time and place of the hearing in which the Commission will
- 9 consider its request for extension.
- 10 9. The Applicant shall make every reasonable effort to identify and correct, on a case-
- 11 specific basis, all complaints of interference with radio or television signals from
- 12 operation of the transmission lines and related facilities addressed in this
- 13 Certificate. The Applicant shall maintain written records for a period of five years
- 14 of all complaints of radio or television interference attributable to operation,
- 15 together with the corrective action taken in response to each complaint. All
- 16 complaints shall be recorded to include notations on the corrective action taken.
- 17 Complaints not leading to a specific action or for which there was no resolution
- 18 shall be noted and explained. Upon request, a copy of these records will be
- 19 provided to Commission Staff.
- 20 10. Within 120 days of the Commission decision granting this Certificate, Applicant
- 21 will post signs in public rights-of-way giving notice of the Project corridor to the
- 22 extent authorized by law. The Applicant shall place signs in prominent locations at
- 23 reasonable intervals such that the public is notified along the full length of the
- 24 transmission line until the transmission structures are constructed. To the extent
- 25 practicable, within 45 days of securing easement or right-of-way for the Project, the
- 26 Applicant shall erect and maintain signs providing public notice that the property is
- 27 the site of a future transmission line. Such signage shall be no smaller than a

normal roadway sign. The signs shall advise:

- (a) That the site has been approved for the construction of Project facilities;
- (b) The expected date of completion of the Project facilities;
- (c) A phone number for public information regarding the Project;
- (d) The name of the Project;
- (e) The name of the Applicant; and
- (f) The website of the Project.

11. Applicant, or its assignee(s), shall design the transmission lines to incorporate reasonable measures to minimize impacts to raptors.
12. Applicant, or its assignee(s), shall use non-specular conductors and dulled surfaces for transmission line structures.
13. Before construction on this Project may commence, the Applicant shall file a construction mitigation and restoration plan ("Plan") with ACC Docket Control and copies to all Parties that complies with all Conservation Measures as set forth in Exhibit B. Where practicable, the Plan shall specify the Applicant's plans for construction access and methods to minimize impacts to wildlife and to minimize vegetation disturbance outside of the Project right-of-way particularly in drainage channels and along stream banks, and shall re-vegetate, unless waived by the landowner, native areas of construction disturbance to its preconstruction state outside of the power-line right of way after construction has been completed. The Plan shall specify the Applicant's plans for coordination with the Arizona Game and Fish Department and the State Historic Preservation Office. The Applicant shall use existing roads for construction and access where practicable and the Plan shall specify the manner in which the Applicant makes use of existing roads.
14. With respect to the Project, Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans

related to the Project and to resolve transmission constraints in a timely manner.

15. The Applicant shall provide copies of this Certificate to the City of Tucson, the Town of Sahuarita, the City of Nogales, Pima County, Santa Cruz County, the Arizona State Land Department, the State Historic Preservation Office, BLM, and the Arizona Game and Fish Department.
16. Prior to the date construction commences on this Project, the Applicant shall provide known homebuilders, neighborhood associations registered with the local governing jurisdiction, and developers of record, within one mile of the center line of the Certificated Project Alignment the identity, location, and a pictorial depiction of the type of power line being constructed, accompanied by a written description, and encourage the developers and homebuilders to include this information in the developers' and homebuilders' homeowners' disclosure statements.
17. Before commencing construction of Project facilities located parallel to and within 100 feet of any existing natural gas or hazardous liquid pipeline, the Applicant shall:
 - (a) Perform the appropriate grounding and cathodic protection studies to show that the Project's location parallel to and within 100 feet of such pipeline results in no material adverse impacts to the pipeline or to public safety when both the pipeline and the Project are in operation. If material adverse impacts are noted in the studies, Applicant shall take appropriate steps to ensure that such material adverse impacts are mitigated. Applicant shall provide to Commission Staff reports of studies performed; and
 - (b) Perform a technical study simulating an outage of the Project that may be caused by the collocation of the Project parallel to and within 100 feet of the existing natural gas or hazardous liquid pipeline. This study should either: i) show that such outage does not result in customer outages; or ii) include

operating plans to minimize any resulting customer outages. Applicant shall provide a copy of this study to Commission Staff.

18. Applicant will comply with the most current Western Electricity Coordinating Council/North American Electric Reliability Corporation Planning standards as approved by the Federal Energy Regulatory Commission, and National Electrical Safety Code construction standards.
19. The Applicant shall submit a self-certification letter annually, identifying progress made with respect to each condition contained in the Certificate, including which conditions have been met. Each letter shall be submitted to the Docket Control of the Arizona Corporation Commission and the parties on August 1 beginning in 2010. Attached to each certification letter shall be documentation explaining how compliance with each condition was achieved. Copies of each letter along with the corresponding documentation shall be submitted to the Arizona Attorney General and Department of Commerce Energy Office. The requirement for the self-certification shall expire on the date the Project is placed into operation.
20. Within sixty (60) days of the Commission decision granting this Certificate, the Applicant shall make good faith efforts to commence discussions with private landowners, on whose property the Project Alignment is located, to identify the specific location for the Project's right-of-way and placement of poles. Applicant shall make reasonable efforts to accommodate landowners' preferences regarding the placement of poles located on or adjacent to the landowners' property.
21. The Applicant shall make reasonable efforts to work with private landowners on whose property the Project right-of-way will be located, to mitigate the impacts of the location, construction, and operation of the Project.
22. Applicant shall construct the Project Alignment only within the corridor more fully described in the attached Exhibit A.

- 1 23. For the Project, Applicant shall, within 30 days of the Commission decision
2 approving the CEC, submit a Pole Finish Plan ("PFP") for the proposed monopole
3 finish for each part of the Project. The PFP shall indicate where a dull galvanized
4 steel finish will be used (e.g. in open terrain or where views of the poles will be
5 against a sky background) versus using self-weathering steel (e.g. where visual
6 views of the poles are against a terrain background). Further, the Pole Finish Plan
7 (PFP) shall indicate that a dulled galvanized steel finish will be used in Segment
8 1A, North Route (Preferred Alignment), between the Vail Substation and Wilmot
9 Road (i.e. where the line extends to the west from the Vail Substation and runs
10 parallel to TEP's Vail-Robert Bills (138 kV) and Vail-Irvington (138 kV) lines).
11 The PFP will be submitted to the Parties, landowners whose property is directly
12 impacted and Commission Staff. The Parties and landowners whose property is
13 directly impacted shall have 15 days to object in writing to the Commission.
- 14 24. The Certificate does not grant to the Applicant the right to construct a second
15 circuit in Segment 1B – the existing line approved in Decision No. 56097 (August
16 17, 1988) on single steel poles that is currently operating at 115 kV. This
17 Certificate recognizes that, as part of the Vail to Valencia 115 kV to 138 kV
18 Transmission Line Upgrade Project, the existing line in Segment 1B will now
19 operate at 138 kV.
- 20 25. Once all new replacement rights-of-way are acquired and the new 138 kV line is in
21 commercial operation, UNS Electric shall remove all unused facilities and
22 relinquish the existing 115 kV rights-of-way where no distribution is attached to the
23 existing transmission line. The Applicant shall include in the self-certification letter
24 required by Condition 19 notice of the relinquishment of any rights-of-way.
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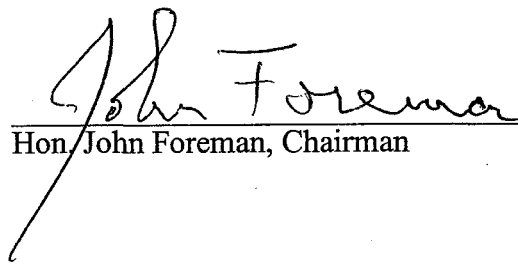
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2 **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

3 This Certificate incorporates the following findings of fact and conclusions of law:

- 4 1. The Project is in the public interest because it aids the state in meeting the need for an
5 adequate, economical and reliable supply of electric power.
- 6 2. In balancing the need for the Project with its effect on the environment and ecology
7 of the state, the conditions placed on the CEC by the Committee effectively
8 minimize its impact on the environment and ecology of the state.
- 9 3. The conditions placed on the CEC by the Committee resolve matters concerning the
10 need for the Project and its impact on the environment and ecology of the state
11 raised during the course of proceedings, and as such, serves as the findings on the
12 matters raised.
- 13 4. In light of these conditions, the balancing in the broad public interest results in
14 favor of granting the CEC.

15 DATED this 15th day of July 2009.

16 **THE ARIZONA POWER PLANT AND**
17 **TRANSMISSION LINE SITING COMMITTEE**

18 
19 Hon. John Foreman, Chairman
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1 **Exhibit A**

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3 A transmission line corridor of 500' width except where noted, with the centerline, as determined from
4 Arizona State Plane Coordinate mapping, more particularly described as follows:

5 Beginning at **Vail Substation**, at grid coordinate (X) 1041085.39, (Y) 391274.36, of Central Zone of Arizona
6 State Plane Coordinate System 1983, and to which National Geodetic Survey point PUMP (PID - CZ0252)
7 bears South 42 degrees 20 minutes 38 seconds West, 4,870.50 feet;

8 thence North 88 degrees 44 minutes 54 seconds West, 307.61 feet;

9 thence North 60 degrees 17 minutes 58 seconds West, 1,037.36 feet;

10 thence North 00 degrees 07 minutes 58 seconds West, 1,017.67 feet;

11 thence South 89 degrees 32 minutes 32 seconds West, 11,891.07 feet;

12 thence South 05 degrees 40 minutes 55 seconds West, 1,744.96 feet;

13 thence South 00 degrees 34 minutes 52 seconds East, 6,224.41 feet to a point in **Nogales Tap**
14 **Substation**;

15 thence South 00 degrees 34 minutes 52 seconds East, 50,753.00 feet;

16 thence South 34 degrees 21 minutes 34 seconds West, 95,891.68 feet;

17 thence South 88 degrees 34 minutes 55 seconds West, 121.34 feet to a point in **Kantor Substation**;

18 thence South 03 degrees 13 minutes 57 seconds East, 158.25 feet;

19 thence South 21 degrees 14 minutes 55 seconds East, 22,453.78 feet;

20 thence South 00 degrees 29 minutes 36 seconds East, 9,011.69 feet;

21 thence South 19 degrees 02 minutes 10 seconds West, 1,725.59 feet;

22 thence South 00 degrees 29 minutes 28 seconds East, 12,408.16 feet;

23 thence South 12 degrees 35 minutes 44 seconds East, 2,722.98 feet;

24 thence South 00 degrees 28 minutes 50 seconds East, 13,826.04 feet;

25 thence South 56 degrees 02 minutes 44 seconds West, 1,101.12 feet to the beginning of a non-tangent
26 curve concave to the southwest, having a radius of 5,853.84 feet, and to which a radial line bears North 47
27 degrees 55 minutes 45 seconds East;

thence southeasterly 2,370.68 feet along said curve through a central angle of 23 degrees 12 minutes 13
seconds;

thence South 18 degrees 52 minutes 02 seconds East, 5,858.00 feet to a point 172 feet westerly of the west
side of **Cañez Substation**;

thence South 18 degrees 52 minutes 02 seconds East, 12,393.42 feet to the beginning of a curve concave
to the northeast and having a radius of 5,553.78 feet;

1 thence southeasterly 3,974.97 feet through a central angle of 41 degrees 00 minutes 28 seconds;
2 thence South 59 degrees 52 minutes 30 seconds East, 1,369.94 feet;
3 thence North 64 degrees 22 minutes 52 seconds East, 1,337.41 feet to a point 63 feet southerly of the
4 south side of **Sonoita Substation**;
5 thence South 25 degrees 54 minutes 45 seconds East, 2,434.49 feet;
6 thence South 18 degrees 53 minutes 51 seconds East, 6,598.53 feet;
7 thence South 37 degrees 22 minutes 02 seconds East, 6,610.08 feet;
8 thence South 00 degrees 35 minutes 23 seconds East, 7,555.17 feet;
9 thence South 30 degrees 26 minutes 05 seconds West, 1,143.95 feet;
10 thence South 03 degrees 55 minutes 22 seconds East, 3,724.62 feet;
11 thence South 17 degrees 58 minutes 34 seconds East, 3,169.01 feet;
12 thence South 79 degrees 39 minutes 56 seconds East, 1,303.27 feet;
13 thence South 43 degrees 47 minutes 11 seconds East, 1,683.12 feet;
14 thence South 04 degrees 49 minutes 19 seconds West, 1,849.85 feet;
15 thence South 00 degrees 35 minutes 14 seconds East, 3,400.89 feet;
16 thence within a 1250'-wide corridor, North 89 degrees 40 minutes 24 seconds East, 1,285.80 feet;
17 thence continuing in a 500'-wide corridor, South 01 degrees 13 minutes 18 seconds East, 2,106.57 feet;
18 thence North 88 degrees 43 minutes 12 seconds East, 2,191.97 feet to the terminus of said centerline at
19 **Valencia Substation**, at grid coordinate (X) 1007459.01, (Y) 133493.23, of said Central Zone, and to which
20 National Geodetic Survey point M423 (PID – CG0883) bears South 23 degrees 09 minutes 01 seconds
21 East, 34,502.53 feet.
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27 Said centerline is 57.72 miles in length, more or less.

Exhibit B

CONSERVATION MEASURES

The following conservation measures are to be implemented by the project proponent.

General

- All construction supervisors will be required to attend environmental training prior to project construction. The training will address environmental concerns, applicable environmental laws, and requirements for compliance. The training will highlight the PPC, YBCU, Gila topminnow, and LLNB so that supervisors are aware of the species and measures to be implemented to reduce potential impacts.
- The project biologist shall be consulted regarding any modifications to roads or towers to appraise the potential impacts to biological resources.
- A fire prevention plan will be developed and adhered to by all personnel to prevent an accidental wildfire.
- To avoid the spread of noxious weeds, construction equipment will be washed prior to entering the work site for the first time and prior to each subsequent return if removed from site.
- To avoid the spread of noxious weeds, areas requiring vegetation clearing around pole structures will be cleared to ground level but the root system of existing vegetation will be left intact to resprout.
- Areas where vegetation has been cleared and no future use is anticipated will be reseeded with appropriate seed mixtures to promote the recovery of native plants.
- All lath and flagging used to mark species will be removed following the completion of construction activities.

Western-Yellow Billed Cuckoo

- Existing access roads and right-of-way corridors will be used wherever possible for construction and maintenance activities.
- Construction through YBCU habitat should be limited to the period between September 1 and March 1.
- If construction occurs between March 1 and August 31 (breeding season), a preconstruction survey will be performed by a qualified biologist to determine if YBCUs are present along the proposed alignment. If nesting cuckoos are identified, a buffer of 0.1 mile on either side of the nest will be established to avoid disturbing the nesting birds. Monitoring of the nest will occur to allow construction to proceed once the nest is empty.

1 **Pima Pineapple Cactus**

- 2 • The limits of construction area, new roads, and location of towers will be
3 marked by UNS Electric prior to construction. In areas of suitable
4 habitat PPC survey(s) will be conducted at locations identified for
5 ground clearing activities (e.g., tower locations) to ensure previously
6 undetected PPC are documented prior to construction.
- 7 • All PPC documented during surveys will be clearly marked with lath and
8 flagging prior to and during construction.
- 9 • Where feasible, UNS Electric will relocate facilities to avoid the PPC.
- 10 • All PPC that cannot be avoided will be mitigated as directed by the
11 Arizona Department of Agriculture and ASLD.

12 **Southwestern Willow Flycatcher**

- 13 • Existing access roads and right-of-way corridors will be used wherever
14 possible for construction and maintenance activities.
- 15 • Removal of cottonwood trees will be limited to the minimum amount
16 necessary to construct and maintain the transmission line.

17 **Lesser Long-nosed Bat and Mexican Long-tongued Bat**

- 18 • All agave and columnar cacti will be avoided to the extent possible
19 during construction. In the event that an agave or saguaro cannot be
20 avoided, mitigation will occur as directed by the land managing agency.

21 **Gila Topminnow**

- 22 • No equipment or replacement poles will be allowed within the active
23 flowing channel of the Santa Cruz River.

24 **Needle-spined Pineapple Cactus**

- 25 • Needle-spined pineapple cactus will be identified during a
26 preconstruction survey and will be avoided to the extent possible during
27 construction activities.

28 **Sonoran Desert Tortoise**

- 29 • If construction is to occur during the desert tortoise active period
30 (February 15 to November 15), a pre-construction survey will be
31 performed within tortoise habitats no earlier than within 48 hours prior to
32 construction to identify desert tortoises or burrows using the desert
33 tortoise survey guidelines (Attachment A).

- 1 • A biological monitor will be present during construction through areas
2 where tortoises or burrows have been observed during surveys. The
3 biological monitor will ensure that no tortoises are present in front of the
4 equipment. If tortoises are identified, they will be moved to an
5 appropriate location outside of harms way. Desert tortoise handling
6 guidelines will be adhered to as outlined in the "Guidelines for Handling
7 Sonoran Desert Tortoises Encountered on Development Projects"
8 compiled by the Arizona Game and Fish Department (Attachment A).
- 9 • The biological monitor will provide information to crews on appropriate
10 notification measures in the event a tortoise is encountered when a
11 qualified biologist is not present.
- 12 • In the event that a desert tortoise needs to be moved from the project
13 alignment the tortoise should be at least 500 feet from but no more than
14 0.25 mile from where it was found. The tortoise shall be moved less
15 than 48 hours in advance of disturbance to minimize the potential of the
16 tortoise returning to the area.
- 17 • If tortoise burrows are found within the project alignment and they will
18 be disturbed by construction activities, they shall be cleared of tortoises
19 and then collapsed by a qualified biologist. The tortoise from the burrow
20 is to be moved to a safe location and placed in a natural or artificial
21 burrow.
- 22 • If tortoise burrows are found adjacent to the project alignment in a
23 location that will not be directly impacted, burrow entrances may be
24 fenced off temporarily so that tortoises present within the burrow do not
25 wander onto the project alignment.
- 26 • If construction is to occur during the active period for the desert tortoise
27 (February 15 to November 15), equipment will be inspected each
morning when equipment is parked overnight to ensure that no tortoises
have moved under the equipment.
- Vehicles are to stay on roads whenever possible.
- Vehicles operating on secondary roads within desert tortoise habitat
should limit vehicle speeds to 15 mph or less.

Migratory Bird Treaty Act

- If construction occurs between March 1 and August 31 (breeding season), a preconstruction survey will be performed by a qualified biologist to determine if nesting migratory birds are present. If nesting raptors are identified, the appropriate spatial buffer listed in the USFWS Guidelines for Raptor Protection from Human and Land Use Disturbances (Ramin and Muck 2002) will be established to avoid disturbing the nesting birds. Monitoring of the nest will occur to allow construction to proceed once the nest is empty.

Arizona Native Plants

- Plants protected under the Arizona Native Plant Law will be avoided wherever feasible. If removal of any of the species listed in Table C-7 is necessary across State and private land, it is recommended that the applicant contact the Arizona Department of Agriculture at least 60 days prior to land clearing activities to provide proper notification and verify proper permit acquisition.

Table C-7
Arizona Native Protected Plants Observed in the Action Area

Species	Protection
Pima pineapple cactus	Highly Safeguarded
Blue palo verde	Salvage Assessed
Velvet mesquite	Harvest Restricted; Salvage Assessed
Saguaro	Salvage Restricted
Ironwood	Salvage Assessed
Ocotillo	Salvage Restricted
Banana yucca	Salvage Restricted
Sotol	Salvage Restricted
All cacti (cholla, barrel cacti, pincushion, etc.)	Salvage Restricted
Salvage Restricted –	Collection by permit only.
Harvest Restricted –	Permits required to remove plant by-products (fuelwood).
Salvage Assessed –	Plants have a significant value if salvaged; permits required for plant removal and salvage.
Highly Safeguarded –	Plants whose prospects for survival in Arizona are in jeopardy or in danger of extinction.

Desert Tortoise Survey Guidelines for Environmental Consultants
October 2007

The following informal guidelines are intended to aid private consultants surveying for presence of tortoises on development projects in the Sonoran Desert. Following these guidelines will not provide quantified abundance estimates.

1) Surveys will be most productive during tortoise activity periods, primarily during the summer monsoon season (July – September) but also in the spring (April) and fall (October). Tortoises are most active in the morning and evening during summer, late morning to afternoon in spring and fall. Results from summer/fall monitoring plots indicate that tortoises are active at temperatures from 20 to 45°C (1 cm above ground).

2) In the Sonoran Desert, tortoises usually occur on rocky slopes in desertscrub to semidesert grassland, as well as along washes, and extending into creosotebush flats. Burrows typically occur below rocks and boulders and may be irregularly shaped. Soil burrows and those in wash banks may have a 1/2-moon appearance.

3) Presence-absence surveys (3 km hectare plots) or Clearance surveys (100% coverage), depending on project type, are recommended to survey a discrete parcel of land. The number of hectare plots per unit area depends on the desired intensity of the survey.

4) Surveyors should record all live tortoises, carcasses, scat, verified burrows (with scat or tortoise inside), and otherwise suitable/potential burrows (empty) and report to the Department.

5) Refer to the Department's "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" if handling will be necessary.

CAJ:caj

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The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

A tortoise may be moved up to two miles, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 105 degrees fahrenheit, the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

- These guidelines do not apply to the Mohave population of desert tortoises (north and west of the Colorado River). Mohave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.
- These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.
- Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

RAC:NLO:rc

Approved Alignment

Vail to Valencia
115 kV to 138 kV
Transmission Line
Upgrade Project

— Approved 138 kV Alignment

▲ Substation

0 5 Miles

